extensive number of documents relating to W B Yeats. Extracts from Yeats's poems and Professor McHugh's Ah, Sweet Dancer are reproduced by kind permission of Macmillan and Michael Yeats.

Addendum

Since I wrote this article my friend Professor J B Lyons of Dublin has told me that Yeats's Steinach operation was mentioned in some letters written by Gogarty to Horace Reynolds, a lifetime friend and a Boston man of letters, which are now in the Houghton Library at Harvard. In October 1934 Gogarty says that Yeats "has undergone Steinach's operation and is now trapped and enmeshed in sex. When I parodied his poem into

> I heard the old, old men say Everything's phallic

little did I think he would become so obsessed before the end. He cannot explode it by pornography (as Joyce) or jocularity as I try to do.'

On 9 March 1955 Gogarty mentions that Yeats "submitted to that humbug, Steinach . . . he never consulted me . . . Ethel Mannin told me that she 'did my best for him' after the operation; but of course without effect!"

References

¹ Yeats WB, ed. Oxford book of modern verse. Oxford: Oxford University Press, 1936.

- ² Medvei C. A history of endocrinology. Lancaster: MTP Press, 1982:
- ³ Anonymous. Borrowed youth. MD Sept 1981:204-8.
- ⁴ Schutte H, Herman JR. Eugen Steinach, 1861-1944. Investigative Urology 1975:12:330-1.
- ⁵ Steinach E, Lobel I, Sex and life, London: Faber and Faber, 1941.
- ⁶ Yeats WB. In: Wade A, ed. The letters of WB Yeats. London: Hart-Davis,
- ⁷ Hone J. W B Yeats: man and artist. London: Macmillan, 1942.
- Stallworthy J. Between the lines. Oxford: Oxford University Press, 1963. 9 Stallworthy J. Vision and revision in Yeats's last poems. Oxford: Oxford University Press, 1969.
- 10 Macliamoir M, Boland E. W B Yeats and his world. London: Thames and Hudson, 1971:109.
- 11 Tuohy F. W B Yeats. London: Macmillan, 1980.
- 12 Haire N. Rejuvenation. London: Allen and Unwin, 1934.
- 13 Yeats WB. In: Wade A, ed. The letters of W B Yeats. London: Hart-Davis,
- 14 Yeats WB. In: Wade A, ed. The letters of WB Yeats. London: Hart-Davis, 1954:814.
- 15 Yeats WB. Manuscript letter in National Library, Dublin.
- 16 Yeats WB. In: Wade A, ed. The letters of W B Yeats. London: Hart-Davis, 1954:822.
- 17 Yeats WB. In: Wade A, ed. The letters of W B Yeats. London: Hart-Davis, 1954:823.
- 18 Yeats WB. In: Wade A, ed. The letters of WB Yeats. London: Hart-Davis, 1954:836.
- 18a Strong LAG. Draft review of ref (7). Manuscript in National Library, Dublin.
- 19 Macliamoir M, Boland E. W B Yeats and his world. London: Thames and Hudson, 1971:127.

 20 McHugh R. Ah, sweet dancer. London: Macmillan, 1970.
- ²¹ Ruddock M. The lemon tree. London: Dent, 1937.
- ²² McHugh R. Ah, sweet dancer. London: Macmillan, 1970:117.
- ²³ Smith SE. Personal view. Br Med J 1982;284:818.
- 24 Yeats WB. In: Wade A, ed. The letters of WB Yeats. London: Hart-Davis, 1954:853-6.

The origin of "Awakenings"

OLIVER SACKS

I have been asked by the editor to write about the genesis of Awakenings. This necessitates a sort of medical autobiography but a sort that I hope may have some real interest and not be merely egocentric or confessional.

I had been fairly orthodox in my neurological training and in my early days as a neurologist had not felt impelled to step out of the formats of established medical formulation and writing. Thus my first book, Migraine, originally written in 1967, was well within the established medical "canon."

When, early in 1969, I embarked on the work which was later to become Awakenings I conceived it in quite limited, and narrowly "scientific," terms—as a 90 day double blind trial of levodopa in a large group of patients who had become institutionalised after having encephalitis. Consciously, at least, I thought of it as little more than this, but there must have been, unconsciously, complex depths below-depths of uncertainty, depths of concern—which caused me, as I did, to hesitate for two years (Cotzias's famous paper had been published in February 19671). These were not "ordinary" patients with Parkinson's disease: they had far more complex pathophysiological syndromes, and their situations were more complex, indeed without precedent—for they had been "institutionalised," and "out of the world," for decades—sometimes since the time of the

Albert Einstein College of Medicine, New York OLIVER SACKS, MD, professor of neurology

Correspondence to: Dr Oliver Sacks, 119 Horton Street, City Island, NY 10464.

great epidemic. Thus, even before I started, I was faced by scientific and human complexities, complexities and perplexities of a sort which had not arisen in previous trials of levodopa, or, indeed, of any treatment in the past. Thus there was an element of the extraordinary, the unprecedented, the unpredictable. I was setting out, with my patients, on an uncharted sea. . . .

And, indeed, it became obvious within a month or less that the original format would have to be abandoned. The effects of levodopa in these patients was decisive—spectacular; while, as I could infer from the precise 50% failure rate, there was no significant placebo effect whatever. I could no longer, in good conscience, continue the placebo but had to try levodopa in every patient; and I could no longer think of giving it for 90 days and then stopping—this would have been like stopping the very air that they breathed. Thus what was originally conceived as a limited 90 day experiment was transformed instead into an historical experience: a story, in effect, of life for these patients as it had been before levodopa, and as it was changed, and as it was to become, after starting treatment with levodopa.

Thus I was impelled, willy nilly, to a presentation of case histories or biographies for no "orthodox" presentation, in terms of numbers, series, grading of effects, etc, could have conveyed the historical reality of the experience. In August 1969, then, I wrote the first nine case histories, or "stories, "of Awakenings.

The same impulse, the same sense that one had to convey stories and phenomena—the drama of stories, the delight of phenomena—led me to write a number of "letters to the editor," which I despatched to the Lancet and the BMJ early the next year. I enjoyed writing these letters, and, as far as I could gather, readers of these journals enjoyed reading them too. There was something about their format and style that allowed me to convey the wonder of the clinical experience, in a way that would have been quite impossible in any article.

But, alas! I then found myself under pressure—an all too common academic pressure—to write proper articles and not simply letters. With much labour (because they went against the grain, so to speak) I put everything I could in an orthodox or conventional format—papers full of statistics and figures and tables and graphs—and submitted these to various medical and neurological journals. To my amazement and chagrin, none was accepted—some of them, indeed, elicited vehemently censorious, even violent, rejections, as if there were something intolerable in what I had written. I was very taken aback at this and could not help contrasting what I was now encountering with the days when I had been a neurological resident and had found instant publication for the papers I wrote. Now, for some reason, strong objection was aroused. I was struck by the irony, the paradox, of all this: when I had nothing much to say I could be published without difficulty; now I had something to say I was denied publication.

"What is happening?" I kept asking myself. Have I wandered off, become an aberration? Or has neurology itself fallen on evil days? Has it become reduced to the trivial? Is no one interested in phenomena any more? I felt, sadly, that I could no longer hope to publish or be published in medical journals, unless I betrayed my own clinical experience. Further, as clinical observation extended itself, and gave rise to considerations beyond the strictly clinical—human, scientific, existential, philosophical—it became clearer that I would have to break out of a purely medical format, and find another one that, while remaining faithful to the clinical, could go beyond it and point to something larger and deeper.

All these problems were related to the expansion of horizons—an expansion which the established must always view with caution, if not outright fear or suspicion; and this, of course, is internalised. One feels a need to depart from the established, the "mainstream," yet one fears to do so, and one still wants its respect. And I had been nursed and nourished by neurology since childhood: my father had been Henry Head's houseman, my mother Kinnier Wilson's—I was born into the neurological tradition. I had studied neurophysiology in the Sherrington Laboratory at Oxford. I revered the tradition. And yet, now, I found myself at odds with it.... The conflicts of tradition and innovation are profound, and I experienced them, lived them, very deeply in myself.

And so, by mid-1970 I was brought to a halt, at least so far as any publication was concerned. The work continued, full of excitement, unabated, and I accumulated (I dared to think) an absolute treasure of observations and of hypotheses and reflections associated with them, but I had no idea what to do with them. I knew that I had been given the rarest of opportunities; I knew that I had something valuable to say, but I saw no way of saying it, of being faithful to my experiences, without forfeiting medical "publishability" or "acceptability" among my colleagues. This was a time of great bewilderment and frustration, considerable anger, and sometimes despair.

This impasse was broken in September of 1972, when the editor of *The Listener* invited me to write an article on my experiences. This was going to be my opportunity. Instead of the censorious rejections I was used to, I was actually being invited to write, being offered a chance to publish, fully and freely, what had been accumulating and building up, dammed up, for so long. I wrote *The Great Awakening* at a sitting—neither I nor the editor altered a single word—and it was published the following month (26 October, 1972). It was followed (what a contrast to the hateful experience of two years earlier, when I had published something in *JAMA* and been attacked by my colleagues) by a wave of interest, and a great number of letters,

an exciting correspondence which lasted several weeks. The readers of *The Listener*, it appeared, lacked the odd animus, the animosity, of my colleagues; they were more imaginative, more hospitable, than those of *JAMA*; and they were curious, and concerned, and encouraged me to write, whereas the *JAMA* experience had been deeply discouraging.

This experience was as affirmative as the other was negative. Yes, I felt, yes, there are real people out there, who are imaginative and curious and want to know more. (They may not be neurologists, but, by God they are real.) The response in *The Listener* put an end to my long years of frustration and obstruction and gave me a decisive encouragement and affirmation. I picked up my long discarded case histories of 1969, added 11 more, and in two weeks completed *Awakenings*.

The case histories were the easiest to write, they wrote themselves, they stemmed straight from experience—and I have always regarded them with especial affection as the true and unassailable centre of Awakenings. The rest is disputable, the stories are so. The rest was more complex but perhaps not less necessary, for I could never separate fact or, rather, phenomena, from theory: "Everything factual is, in a sense, theory... There is no sense in looking for something behind phenomena: they are theory." (Goethe).

I have always had to interfuse narration with meditation, embedding each, so to speak, in the other. Thus what was done in miniature in the letters to the *Lancet* and *BMJ*, this interfusion of case history and essay, was done at length and at leisure in *Awakenings*; and could never have been done within the format of any conventional article or book.

Perhaps this is why, in 1973, Awakenings, while intriguing many non-medical readers, met the same cold reception from the profession as my articles had done earlier. There was not a single medical notice or review, only a disapproving or uncomprehending silence. There was one brave editor (of the British Clinical Journal) who spoke out on this, making Awakenings his "editor's choice" for 1973, but commenting on "the strange mutism" of the profession towards it.²

This strange mutism, this disapproval, alas had its own resonance in me, and if *Awakenings* had been delayed or inhibited for three years, its successor, sadly, was to be delayed for nearly 10, but, happily, is now completed and in press.

The delay in both cases is rooted in something quite fundamental—the antagonism, or seeming antagonism, of the old and the new, which, while not irresolvable, takes time to resolve.

I spoke earlier of the complex and ambiguous relation that must always exist between innovation and tradition and, specifically, of my own need to depart from but also uphold tradition, both equally, with equal intensity. If one is blessed (or cursed) with any originality, this is a problem which must always face one—to define how one stands in relation to tradition. I believe I have done this now in my forthcoming book, A Leg to Stand On, but I had certainly not done it when I first wrote Awakenings; though in the epilogue of its latest, 1983, edition I think I have conveyed a certain resolution, a calm which eluded me in the original 1973 edition.

This, then, was the genesis of Awakenings, with some of the situations and feelings which went on behind the scenes. They may have some personal or biographical interest; they may afford some encouragement or discouragement to others—because the problems I faced are not that uncommon. This, at least, was part of the genesis; beyond this lies the mystery of all genesis.

References

¹ Cotzias GC, Van Woert MH, Schiffer LM. Aromatic amino acids and modification of parkinsonism. N Engl J Med 1967;267:374-9.

² Anonymous. Medical literature. British Clinical Journal 1974;2:3.